

CoE 197-S ME 8 Activity 5

1. Setting up the server

```
PS C:\WINDOWS\system32> e:
PS E:\> cd "E:\Janzen Desktop\Third Year Second Sem\CoE 197-S\Week 10\ME8\ME8_Containerization_and_Docker\5-volumes"
PS E:\Janzen Desktop\Third Year Second Sem\CoE 197-S\Week 10\ME8\ME8_Containerization_and_Docker\5-volumes> docker run --rm -d --name apache -p 80:80 httpd:2.4
Unable to find image 'httpd:2.4' locally
2.4: Pulling from library/httpd
69692152171a: Pull complete
7284b4e0cc7b: Pull complete
3678b2d55ccd: Pull complete
aeb67982a725: Pull complete
06954f8169fd: Pull complete
Digest: sha256:48bae0ac5d0d75168f1c1282c0eb21b43302cb1b5c5dc9fa3b4a758ccfb36fe9
Status: Downloaded newer image for httpd:2.4
51064e4167959bbb666bae94d99372a236787d1e36fb35f7c8597a4e9eea6cd5
```

```
C:\WINDOWS\system32>curl localhost
<html><body><h1>It works!</h1></body></html>

C:\WINDOWS\system32>docker cp index.html apache:/usr/local/apache2/htdocs/
CreateFile C:\Windows\System32\index.html: The system cannot find the file specified.

C:\WINDOWS\system32>e:
E:\>cd Janzen Desktop\Third Year Second Sem\CoE 197-S\Week 10\ME8\ME8_Containerization_and_Docker\5-volumes
E:\Janzen Desktop\Third Year Second Sem\CoE 197-S\Week 10\ME8\ME8_Containerization_and_Docker\5-volumes>docker cp index.html apache:/usr/local/apache2/htdocs/
E:\Janzen Desktop\Third Year Second Sem\CoE 197-S\Week 10\ME8\ME8_Containerization_and_Docker\5-volumes>curl localhost
<html><body><h1>It works in Docker!</h1></body></html>
```

2. A possible data problem

```
E:\Janzen Desktop\Third Year Second Sem\CoE 197-S\Week 10\ME8\ME8_Containerization_and_Docker\5-volumes>docker stop apache
apache
E:\Janzen Desktop\Third Year Second Sem\CoE 197-S\Week 10\ME8\ME8_Containerization_and_Docker\5-volumes>docker run --rm -d --name apache -p 80:80 httpd:2.4
5aff9eff58fbf0c21c9ea8b245eda23b76d0d6f1a195661c99c6eb571b39cc79
E:\Janzen Desktop\Third Year Second Sem\CoE 197-S\Week 10\ME8\ME8_Containerization_and_Docker\5-volumes>curl localhost
<html><body><h1>It works!</h1></body></html>
```

3. Managing volumes

```
E:\Janzen Desktop\Third Year Second Sem\CoE 197-S\Week 10\ME8\ME8_Containerization_and_Docker\5-volumes>docker volume ls
DRIVER      VOLUME NAME

E:\Janzen Desktop\Third Year Second Sem\CoE 197-S\Week 10\ME8\ME8_Containerization_and_Docker\5-volumes>docker volume create myvolume
myvolume

E:\Janzen Desktop\Third Year Second Sem\CoE 197-S\Week 10\ME8\ME8_Containerization_and_Docker\5-volumes>docker volume ls
DRIVER      VOLUME NAME
local       myvolume

E:\Janzen Desktop\Third Year Second Sem\CoE 197-S\Week 10\ME8\ME8_Containerization_and_Docker\5-volumes>docker volume rm myvolume
myvolume

E:\Janzen Desktop\Third Year Second Sem\CoE 197-S\Week 10\ME8\ME8_Containerization_and_Docker\5-volumes>docker volume ls
DRIVER      VOLUME NAME
```

4. Mounting volumes on containers

```
E:\Janzen Desktop\Third Year Second Sem\CoE 197-S\Week 10\ME8\ME8_Containerization_and_Docker\5-volumes>docker volume create httpd_htdocs
httpd_htdocs

E:\Janzen Desktop\Third Year Second Sem\CoE 197-S\Week 10\ME8\ME8_Containerization_and_Docker\5-volumes>docker run --rm -d --name apache -p 80:80 -v httpd_htdocs:/usr/local/apache2/htdocs/ httpd:2.4
docker: Error response from daemon: Conflict. The container name "/apache" is already in use by container "5aff9eff58fbf0c21c9ea8b245eda23b76d0d6f1a195661c99c6eb571b39cc79". You have to remove (or rename) that container to be able to reuse that name.
See 'docker run --help'.

E:\Janzen Desktop\Third Year Second Sem\CoE 197-S\Week 10\ME8\ME8_Containerization_and_Docker\5-volumes>docker ps
CONTAINER ID   IMAGE          COMMAND                  CREATED        STATUS        PORTS                    NAMES
5aff9eff58fb   httpd:2.4     "httpd-foreground"      3 minutes ago   Up 3 minutes   0.0.0.0:80->80/tcp, :::80->80/tcp   apache

E:\Janzen Desktop\Third Year Second Sem\CoE 197-S\Week 10\ME8\ME8_Containerization_and_Docker\5-volumes>docker stop 5af
5af

E:\Janzen Desktop\Third Year Second Sem\CoE 197-S\Week 10\ME8\ME8_Containerization_and_Docker\5-volumes>docker run --rm -d --name apache -p 80:80 -v httpd_htdocs:/usr/local/apache2/htdocs/ httpd:2.4
1e7f8d1013189d7a7ccade135c006db5a41a1d42d3c8026af17fd0d631638c3

E:\Janzen Desktop\Third Year Second Sem\CoE 197-S\Week 10\ME8\ME8_Containerization_and_Docker\5-volumes>docker cp index.html apache:/usr/local/apache2/htdocs/
E:\Janzen Desktop\Third Year Second Sem\CoE 197-S\Week 10\ME8\ME8_Containerization_and_Docker\5-volumes>curl localhost
<html><body><h1>It works in Docker!</h1></body></html>

E:\Janzen Desktop\Third Year Second Sem\CoE 197-S\Week 10\ME8\ME8_Containerization_and_Docker\5-volumes>docker stop apache
apache
```

```

E:\Janzen Desktop\Third Year Second Sem\CoE 197-S\Week 10\ME8\ME8_Containerization_and_Docker\5-volumes>docker run --rm -d --name apache -p 80:80 -v httpd_htdocs:/usr/local
/apache2/htdocs/ httpd:2.4
78fd39b5eb63cb2f780d0dbdf923f94724e3e4f5279e019ee00f1da8334507ef

E:\Janzen Desktop\Third Year Second Sem\CoE 197-S\Week 10\ME8\ME8_Containerization_and_Docker\5-volumes>curl localhost
<html><body><h1>It works in Docker!</h1></body></html>

E:\Janzen Desktop\Third Year Second Sem\CoE 197-S\Week 10\ME8\ME8_Containerization_and_Docker\5-volumes>docker stop apache
apache

E:\Janzen Desktop\Third Year Second Sem\CoE 197-S\Week 10\ME8\ME8_Containerization_and_Docker\5-volumes>docker volume rm httpd_htdocs
httpd_htdocs

```

5. Mounting house directories in containers

```

C:\WINDOWS\system32>docker run --rm -d --name apache -p 80:80 -v "E:\Janzen Desktop\Third Year Second Sem\CoE 197-S\Week 10\ME8\ME8_Containerization_and_Docker\5-volumes:/usr/local/apache2/htdocs/" httpd:2.4
7e264e1e42a5d0c995c586ce17b279531c4548d9fd859016cc7962316beff9c8

C:\WINDOWS\system32>curl localhost
<html><body><h1>It works in Docker!</h1></body></html>

C:\WINDOWS\system32>curl localhost
<html><body><h1>It works in Docker! Lezzgo</h1></body></html>

C:\WINDOWS\system32>docker stop apache
apache

```